

AMENDMENTS TO CLAIMS -- MARKED UP VERSION

Please amend the claims as follows:

1 1. (Once amended) A method of determining the current service level of a wireless
2 communication device, the method comprising [the steps of]:
3 providing at least three distinct levels of service including a [first level of service]
4 storing service mode, a [second level of service] basic service mode, and a
5 [third level of service] full service mode;
6 distinguishing between the [first service level] storing service mode and the
7 [second service level] basic service mode based upon one or more
8 characteristics of a forward channel from a messaging system to the
9 wireless communication device; and
10 distinguishing between the [second service level] basic service mode and the
11 [third service level] full service mode based upon one or more
12 characteristics of a reverse channel from the wireless communication
13 device to the messaging system.

1 2. (Once amended) The method of claim 1, wherein new messages destined for the
2 wireless communication device are stored by the messaging system while the
3 wireless communication device is providing the [first level of service] storing
4 service mode.

1 3. (Once amended) The method of claim 2, wherein new messages destined for the
2 wireless communication device are transmitted to the wireless communication
3 device by the messaging system and stored messages that remain undelivered as a

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4 result of the wireless communication device providing the [first level of service]
5 storing service mode remain undelivered while the wireless communication
6 device is providing the [second level of service] basic service mode.

1 4. (Once amended) The method of claim 3, wherein both new messages and stored
2 messages are transmitted to the wireless communication device by the messaging
3 system while the wireless communication device is providing the [third level of
4 service] full service mode.

1 5. (Once amended) The method of claim 1, wherein the one or more characteristics
2 of the forward channel includes the forward channel's signal quality.

1 6. (Once amended) The method of claim 5 further including [the step of] generating
2 a signal quality metric representative of the forward channel's signal quality over
3 a predetermined period of time.

1 7. (Once amended) The method of claim 1, wherein the one or more characteristics
2 of the forward channel includes a status.

1 8. (Once amended) The method of claim 7, wherein the status represents a value
2 from one of a plurality of states, the method further including [the step of]
3 associating each of the plurality of states with a weight.

1 9. (Once amended) The method of claim 8, wherein the plurality of states [include]
2 includes:
3 no signal;
4 synchronization error;

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5 frame error; and

6 good frame.

1 10. (Once amended) The method of claim 8 further including [the step of] generating
2 a signal quality metric representative of the forward channel's signal quality over
3 a predetermined period of time based upon weighted values of the status over the
4 predetermined period of time.

1 12. (Once amended) A method of transitioning between service modes and indicating
2 a current service mode to a user of a wireless communication device, the method
3 comprising [the steps of]:
4 determining a status of a signal associated with a forward channel from a
5 messaging system to the wireless communication device;
6 determining a quality metric based upon the status over a predetermined period of
7 time;
8 providing at least a full service mode, a basic service mode, and a storing service
9 mode;
10 if the current service mode is the storing service mode, transitioning to the basic
11 service mode after determining the quality metric is better than a first
12 predetermined threshold;
13 if the current service mode is the basic service mode, transitioning to the full
14 service mode after verification of a reverse channel from the wireless
15 communication device to the messaging system; and
16 if the current service mode is the full service mode, transitioning to the basic
17 service mode after determining the reverse channel has become degraded.

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1 13. (Once amended) The method of claim 12 further comprising [the step of]
2 providing an indication of the current service mode to the user.

1 14. (Once amended) The method of claim 12 further [including the steps of]
2 comprising:
3 determining an initial value for the current service mode by:
4 inspecting the signal for synchronization information,
5 initializing the current service mode to the storing service mode if no
6 synchronization information is found, and
7 initializing the current service mode to the basic service mode if
8 synchronization information is found.

1 15. (Once amended) The method of claim 12 further [including the steps of]
2 comprising:
3 in the basic service mode, transitioning to the storing service mode after the status
4 indicates the wireless communication device is out of range;
5 in the full service mode, transitioning to the basic service mode after determining
6 the quality metric is worse than a second predetermined threshold; and
7 in the full service mode, transitioning to the storing service mode after the status
8 indicates the wireless communication device is out of range.

1 16. (Once amended) The method of claim 12, wherein the storing service mode
2 includes a first storing state and a second storing state, and wherein the basic
3 service mode includes a first basic state, a second basic state, and a third basic
4 state, the method further [including the steps of] comprising:
5 in the first storing state, re-initializing a service quality monitoring process after
6 the status indicates a good frame has been detected on the forward
7 channel;
8 in the second storing state, beginning a registration process after the status
9 indicates a ping has been received from the messaging system on the
10 forward channel;
11 in the first basic state, transitioning to the second basic state after determining the
12 quality metric is better than a third predetermined threshold;
13 in the second basic state, transitioning to the third basic state after determining the
14 quality metric is worse than the second predetermined threshold; and
15 in the third basic state, transitioning to the second basic state after determining the
16 quality metric is better than the third predetermined threshold.

1 19. (Once amended) The method of claim 12 further including [the step of]
2 determining whether or not to attempt registering with the messaging system
3 based upon the current service mode.

1 20. (Once amended) The method of claim 12 further including [the step of]
2 periodically evaluating the quality metric.

1 21. (Once amended) A method of registering a wireless communication device with a
2 messaging system, the method comprising [the steps of]:
3 providing a current service mode in one of a plurality of states including:
4 a storing service mode in which new messages destined for the wireless
5 communication device are not received by the wireless
6 communication device,
7 a basic service mode in which new messages destined for the wireless
8 communication device are received by the wireless communication
9 device and stored messages that remain undelivered as a result of
10 the wireless communication device having been in the storing
11 service mode remain undelivered while the wireless
12 communication device is in the basic service mode, and
13 a full service mode in which both new messages and stored messages are
14 received by the wireless communication device while the wireless
15 communication device is in the full service mode;
16 a registration process determining what action to take based upon the current
17 service mode.

1 22. (Once amended) The method of claim 21 further including [the steps of]:
2 the registration process transmitting one or more registration messages to the
3 messaging system during the basic service mode; and
4 the registration process transmitting no registration messages to the messaging
5 system during the full service mode and the storing service mode.

1 23. (Once amended) The method of claim 21 further including [the steps of]:
2 determining a status of a signal associated with a forward channel from a
3 messaging system to the wireless communication device;
4 determining a quality metric based upon the status over a predetermined period of
5 time;
6 if the current service mode is the storing service mode, transitioning to the basic
7 service mode after determining the quality metric is better than a first
8 predetermined threshold;
9 if the current service mode is the basic service mode, transitioning to the full
10 service mode after verification of a reverse channel from the wireless
11 communication device to the messaging system; and
12 if the current service mode is the full service mode, transitioning to the basic
13 service mode after determining the reverse channel has become degraded.

1 24. (Once amended) The method of claim 23 further including [the steps of]:
2 determining an initial value for the current service mode by
3 inspecting the signal for synchronization information,
4 initializing the current service mode to the storing service mode if no
5 synchronization information is found, and
6 initializing the current service mode to the basic service mode if
7 synchronization information is found.

- 1 25. (Once amended) The method of claim 23 further including [the steps of]:
2 in the basic service mode, transitioning to the storing service mode after the status
3 indicates the wireless communication device is out of range;
4 in the full service mode, transitioning to the basic service mode after determining
5 the quality metric is worse than a second predetermined threshold; and
6 in the full service mode, transitioning to the storing service mode after the status
7 indicates the wireless communication device is out of range.

Please add the following claims:

- 1 30. (New) --A method comprising:
2 determining a status of a forward channel signal from a messaging system to a
3 wireless communication device;
4 determining a quality metric based upon the status of the forward channel signal
5 over a predetermined period of time;
6 providing at least a full service mode, a basic service mode, and a storing service
7 mode, wherein:
8 the storing service mode comprises at least a first storing state and a
9 second storing state, and
10 the basic service mode comprises at least a first basic state, a second basic
11 state, and a third basic state;
12 if the current service mode is the storing service mode, transitioning to the basic
13 service mode after determining the quality metric is better than a first
14 predetermined threshold;

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15 if the current service mode is the basic service mode, transitioning to the full
16 service mode after verification of a reverse channel from the wireless
17 communication device to the messaging system; and
18 if the current service mode is the full service mode, transitioning to the basic
19 service mode after determining the reverse channel has become degraded
20 or if the quality metric is worse than a second predetermined threshold.--

1 31. (New) --The method of claim 30, wherein the first basic state is a state in which
2 the wireless communication device is barely in range, the second basic state is a
3 state in which in which the forward channel signal is of good quality and the
4 reverse channel is not verified, and the third basic state is a state in which the
5 forward channel reception is breaking up.--

1 32. (New) --The method of claim 30, wherein the first storing state is a state in which
2 the wireless communication device is out of range and the second storing state is a
3 state in which the wireless communication device is almost out of range.--

1 33. (New) --The method of claim 30, further comprising transitioning to the first
2 storing state from any other state after receiving an out of range status from a
3 forward channel monitoring logic.--

1 34. (New) --The method of claim 30, further comprising transitioning from the first
2 basic state to the second basic state if the quality metric is better than a third
3 predetermined threshold.--

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1 35. (New) --The method of claim 34, further comprising transitioning from the first
2 basic state or the third basic state to the second storing state if the quality metric is
3 worse than a fourth predetermined threshold.--

1 36. (New) --The method of claim 30, further comprising transitioning from the
2 second basic state to the third basic state if the quality metric is worse than the
3 second predetermined threshold.--

1 37. (New) --The method of claim 30, wherein the first basic state is the initial state
2 on reset if a synchronization signal is found on the forward channel.--

1 38. (New) --The method of claim 30, wherein the first storing state is the initial state
2 on reset if a synchronization signal is not found on the forward channel.--